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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/599,869

10/12/2006

Robert Schroeck

WAS0795PUSA

5862

22045 7590 07/12/2010

BROOKS KUSHMAN P.C.  
1000 TOWN CENTER  
TWENTY-SECOND FLOOR  
SOUTHFIELD, MI 48075

EXAMINER

JANCA, ANDREW JOSEPH

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

07/12/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/599,869	<b>Applicant(s)</b> SCHROECK ET AL.	
	<b>Examiner</b> Andrew Janca	<b>Art Unit</b> 1797	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 May 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 5-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status***

1. This is the second non-final rejection of application serial no. 10/599,869 filed 10/12/2006.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 5-18 have been considered but are moot in view of the new ground(s) of rejection. However, as the point remains relevant, it is noted that the process maxima of Joffre (Applicant's Remarks 4/7/10 p 5 last paragraph) may be regarded as upper set points, that is set points below which the temperature of the emulsion is to be kept.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 5-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 5 recites "the second shear mixer" (line 9). It is unclear whether this refers to the "second high shear mixer" antecedently recited.

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6. Claim 5 recites “the second high speed mixer” (line 10) and “the first and second high speed mixers” (line 12). There is insufficient antecedent basis for these limitations in the claim.

7. Claims 7-11 recite regulation of “the speed of” one or more of the high shear mixers. In light of the specification which explicitly notes that the high shear mixers may include one or more types of static mixers (p 4 first paragraph), it is unclear to which speed these limitations refer.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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10. Claims 5-6, 9-10, 12, 14, and 16-18 are rejected under 35 USC 103(a) as unpatentable over US 4,908,154 to Cook et al in view of EP 0915122 A1 by Joffre et al.

11. With regard to claim 5, Cook teach a process for the continuous preparation of aqueous emulsions comprising organosilicon compound(s) (A) (12:53-57), emulsifier(s) (B) (12:67-13:2: the final emulsion may contain an emulsifier) and water (C), comprising a) feeding at least a portion of the (A), (B), and (C) components continuously to a first high-shear mixer 1 in which a highly viscous silicone emulsion is formed; b) and feeding the highly viscous silicone emulsion from a) to the same high-shear mixer a second time (6:40), and optionally admixing further components (A), (B), and (C); and further implicitly teach c) establishing a set point for each of temperature and pressure for emulsion exiting the first high shear mix[er] and the second shear mixer, measuring the temperatures and pressure of the emulsion exiting the first high shear mixer and the second high speed mixer, and adjusting process parameters to maintain the temperature and pressures of the emulsion exiting the first and second high speed mixers at their respective set points: to control a temperature and pressure of the emulsion exiting the mixer (6:43-45), it is necessary to determine a desired temperature (i.e. a set point) and a desired pressure, to measure the temperature and the pressure, and adjust process parameters, i.e. the temperature and the pressure of the emulsion recirculating from tank 31 (figure 1; 5:49ff). Cook do not explicitly teach that the second high-shear mixer encountered by the recirculating emulsion be a separate high-shear mixer from the first. However, it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. See *St. Regis Paper Co.*

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*v. Bemis Co.*, 193 USPQ 8. Further, Joffre teach a process for the continuous preparation of aqueous emulsions comprising organosilicon compound(s) (A), emulsifier(s) (B) and water (C) (para 0001), comprising a) feeding at least a portion of the (A), (B), and (C) components continuously to a first high-shear mixer (the “second mixer” of para 0036: the “first mixer” of Joffre is to form a premix, para 0035) in which a highly viscous silicone emulsion is formed; b) feeding the highly viscous silicone emulsion from a) to a second high-shear mixer (the optional but preferred “third mixer” of para 0038), and optionally admixing further components (A), (B), and (C); c) establishing a set point for temperature for emulsion exiting the first high shear mixture (para 0037) and the second shear mixer (para 0042), measuring the temperatures of the emulsion exiting the second high speed mixer (para 0042), and adjusting process parameters to maintain the temperature of the emulsion exiting the second high speed mixer at its respective set points (paras 0036-0037). It would have been obvious to one of ordinary skill to have used the separate high shear mixers of Joffre instead of recirculating the emulsion through a single mixer, as do Cook: the motivation would have been to be able to add different proportions of components to different stages of a continuous process (Cook paras 0001, 0035-0039).

12. The additional elements of claim 6, including that the pressure measured after said first or after said second high shear mixer is adjusted by regulating the pressure after the second high-shear mixer, are taught by Cook: all measurements and adjustments of the pressure occur in tank 31 after the high-shear mixer 1 (6:43-45).

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13. The additional elements of claims 9-10, including that the temperature is regulated by adjusting the temperature of the raw materials and the speed of the mixers, are taught by Joffre (paras 0037, 0046).

14. The additional elements of claim 12, including that the organosilicon compound (A) is liquid at 25.degree. C. and has a viscosity of from 0.5 to 500,000 mPas, are taught by Joffre (para 0042).

15. The additional elements of claim 14, including that the temperature of emulsions exiting the first and second mixers are each independently within the range of 5°C to 100°C, are obvious over Joffre. Joffre teaches that the temperature of the emulsion exiting the second mixer may be measured at 40 C (para 0042), and further teaches that the temperature of the emulsion in the second mixer should be no more than 60 or most preferably 40 C (para 0039). It would have been obvious to one of ordinary skill to ensure that all the components entering the second mixer, including the silicone-in-water emulsion premix exiting the first mixer, be no more than 40-60 C: the motivation would have been to make the temperature of the mix in the second mixer easier to control.

16. The additional elements of claim 16, including that at least one additional high shear mixer follows said first and second high shear mixers, are taught by Joffre (paras 0038, 0042).

17. The additional elements of claim 17, including that wherein at least one of further components A), B), and C) may be fed into said second mixer, are taught by Joffre (para 0036).

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18. The additional elements of claim 18, including that the rotational speeds of the first mixer and the second mixer are independently adjustable, are taught by Joffre (para 0042).

19. Claims 7-8 and 11 are rejected under 35 USC 103(a) as unpatentable over US 4,908,154 to Cook et al in view of EP 0915122 A1 by Joffre et al as applied to claim 5 above, and further in view of US 5,250,576 to DesMarais et al.

20. With regard to claims 7-8, Cook implicitly teach that the pressure measured after the high shear mixer should be regulated (6:43-45), but do not explicitly teach that the pressure be regulated by regulating the speed of the high shear mixer. However, DesMarais teach a process for the continuous preparation of aqueous emulsions comprising organic compound(s) (A), emulsifier(s) (B) (6:8) and water (C), comprising a) feeding at least a portion of the (A), (B), and (C) components continuously to a high-shear mixer in which a highly viscous oil-in-water emulsion is formed (9:3ff); b) feeding the highly viscous oil-in-water emulsion from a) to a second high-shear mixer (11:55ff), and optionally admixing further components (A), (B), and (C); and c) establishing a set point for pressure and temperature (10:35-46) for emulsion exiting one or both of the high shear mixers, measuring the pressure of the emulsion exiting the high shear mixers, and adjusting process parameters to maintain the pressures of the emulsion exiting the first and second high speed mixers at their respective set points (17:10-35); and further teach that the pressure measured after a high shear mixer is adjusted by regulating the speed of the high speed mixer (17:24-35). Cook, Joffre, and DesMarais are analogous arts, being from the same field of endeavor, the creation of oil-in-water



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emulsions. It would have been obvious for one of ordinary skill to have regulated the measured pressures in the system of Cook and Joffre by regulating the speed of the high shear mixer, as do DesMarais: the motivation would have been the fine tuning of pressure it allows (17:29-35).

21. The additional elements of claim 11, including that the temperature is regulated by adjusting the temperature of the raw materials and the speed of the mixers, are taught by Joffre (paras 0037, 0046).

22. Claims 13 and 15 are rejected under 35 USC 103(a) as unpatentable over US 4,908,154 to Cook et al in view of EP 0915122 A1 by Joffre et al as applied to claim 5 above, and further in view of US 6,492,459 B1 to Hager et al.

23. With regard to claim 13, Cook teach that the pressure after each pass through a mixer should be regulated (6:43-45), and Joffre teach that instead of one mixer through which the emulsion is recirculated that there should be two separate mixers independently controllable (para 0042), but neither teach that the pressure following the first and the second mixers are each independently within the range of 1 to 10 bar. However, Hager teach a process for the continuous preparation of aqueous emulsions comprising organic compound(s) (A), emulsifier(s) (B) and water (C) (1:4-17, 5:20), comprising a) feeding at least a portion of the (A), (B), and (C) components continuously to a high-shear mixer in which a highly viscous oil-in-water emulsion is formed (7:59-62); and c) establishing a set point for pressure and temperature for emulsion in the high shear mixers, and regulating the pressure and temperature to maintain the emulsion at the set points (8:22-30); and further teach that the pressure should be

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regulated to about 1 bar, in the range of 1 to 10 bar (8:22-30). It would have been obvious to one of ordinary skill to have set the pressure of the formed silicone-water emulsion of Joffre and Cook to 1 bar, as do Hager: the motivation would have been that the formed emulsion should be stable at atmospheric pressure since that is the pressure under which the final product is used (Hager 8:1-21).

24. The additional elements of claim 15, including that the temperature of emulsions exiting the first and second mixers are each independently within the range of 5°C to 100°C, are obvious over Joffre. Joffre teaches that the temperature of the emulsion exiting the second mixer may be measured at 40 C (para 0042), and further teaches that the temperature of the emulsion in the second mixer should be no more than 60 or most preferably 40 C (para 0039). It would have been obvious to one of ordinary skill to ensure that all the components entering the second mixer, including the silicone-in-water emulsion premix exiting the first mixer, be no more than 40-60 C: the motivation would have been to make the temperature of the mix in the second mixer easier to control.

### ***Conclusion***

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Janca whose telephone number is (571) 270-5550. The examiner can normally be reached on M-Th 8-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on (571) 272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AJJ

/Tony G Soohoo/  
Primary Examiner, Art Unit 1797

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